

Silicon NPN Power Transistors

2SC3210

DESCRIPTION

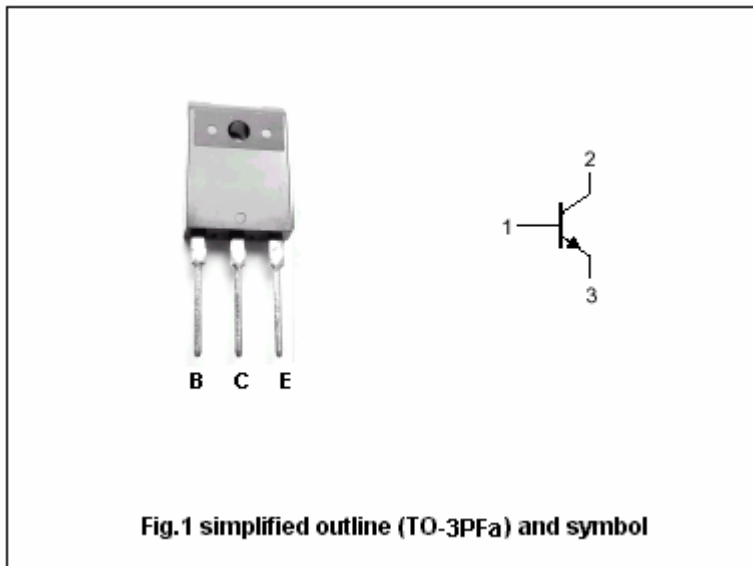
- With TO-3PFa package
- Low collector saturation voltage
- High breakdown voltage

APPLICATIONS

- For high speed switching applications

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Base |
| 2 | Collector |
| 3 | Emitter |



Absolute maximum ratings(Ta=25)

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|-----------|-----------------------------|----------------|---------|------|
| V_{CBO} | Collector-base voltage | Open emitter | 500 | V |
| V_{CEO} | Collector-emitter voltage | Open base | 400 | V |
| V_{EBO} | Emitter-base voltage | Open collector | 7 | V |
| I_C | Collector current | | 10 | A |
| I_{CM} | Collector current-peak | | 20 | A |
| I_B | Base current | | 5 | A |
| P_C | Collector power dissipation | $T_C=25$ | 100 | W |
| | | $T_a=25$ | 3 | |
| T_j | Junction temperature | | 150 | |
| T_{stg} | Storage temperature | | -55~150 | |

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CHARACTERISTICS

T_j=25 unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|--|-----|------|-----|------|
| V _{CEO(SUS)} | Collector-emitter sustaining voltage | I _C =0.2A; L=25mH | 400 | | | V |
| V _{CEsat} | Collector-emitter saturation voltage | I _C =5A ; I _B =1A | | | 1.0 | V |
| V _{BEsat} | Base-emitter saturation voltage | I _C =5A ; I _B =1A | | | 1.5 | V |
| I _{CBO} | Collector cut-off current | V _{CB} =500V; I _E =0 | | | 100 | μ A |
| I _{EBO} | Emitter cut-off current | V _{EB} =5V; I _C =0 | | | 100 | μ A |
| h _{FE-1} | DC current gain | I _C =0.1A ; V _{CE} =5V | 15 | | | |
| h _{FE-2} | DC current gain | I _C =5A ; V _{CE} =5V | 8 | | | |
| f _T | Transition frequency | I _C =0.5A ; V _{CE} =10V | | 11 | | MHz |
| Switching times | | | | | | |
| t _{on} | Turn-on time | I _C =5A; V _{CC} =100V I _{B1} =-I _{B2} =1A | | | 1.0 | μ s |
| t _{stg} | Storage time | | | | 2.5 | μ s |
| t _f | Fall time | | | | 1.0 | μ s |

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PACKAGE OUTLINE

